

Patent claims

1. A pneumatic spring/damper unit, in particular for a motor vehicle, comprising a cylinder housing (1) and a double-acting separator piston (6) which is fitted into the cylinder housing (1) and has a piston rod (7) which projects out of the cylinder housing (1), the cylinder housing (1) and the piston rod (7) each being attached to a respective one of two moveable components and the separator piston (6) dividing the interior of the cylinder housing (1) into one damper space (9) which decreases in size during compression and one further damper space (10) which increases in size during compression and a rolling bellows (14) being fastened in between the projecting piston rod (7) and the cylinder housing (1), said rolling bellows (14) forming a spring space (17) which decreases in size during compression, the spring space (17) and the damper space (9) being combined by means of ducts in the piston rod (7) into a common spring/damper space (9, 17), and the common spring/damper space (9, 17) and the damper space (10) being connected by means of overflow throttles (21, 22),

characterized in that the overflow throttles (21, 22) are arranged in the cylinder housing (1) between the damper space (10) which increases in size during compression and the spring space (17) which decreases in size during compression.

2. The pneumatic spring/damper unit as claimed in claim 1,
characterized in that the cylinder housing (1) has an open connecting duct (23) in the region between the damper space (10) and the spring space (17), and the overflow throttles (21, 22) are arranged in a valve insert (20) which is fixedly located in the cylinder housing (1).

3. The pneumatic spring/damper unit as claimed in claim 1, the overflow throttles (21, 22) being embodied as spring-loaded throttles having a constant or adjustable spring characteristic,

characterized in that the corresponding devices for powering and controlling the throttle elements of the overflow throttles (21, 22) are situated outside the spring/damper unit and are connected to the overflow throttles (21, 22) by means of an adapter (24) which is arranged on the collar (4) of the cylinder housing (1).

4. The pneumatic spring/damper unit as claimed in claim 3, **characterized** in that, in addition to the overflow throttles (21, 22), further throttle elements are provided in or on the piston rod (7), the throttle cross sections being adjusted as a function of the stroke of the piston rod (7).